

CERTIFICATE UNDER 37 CFR 1.10EXPRESS MAIL LABEL: EL 527 872 668 USDEPOSITED: June, 2001

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service in an envelope as "Express Mail" addressed to the Box Patent Application Fee; Assistant Commissioner for Patents, Washington, DC 20231.

Signed: Raquel Graeber  
Raquel Graeber

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

**SHARKEY et al.**Examiner: **To be assigned**Serial No.: **To be assigned**Group Art Unit: **To be assigned**Filing Date: **June 29, 2001**

For: **Surgical Instrument Having  
Distal Face with First and Second  
Electrodes**

**PRELIMINARY AMENDMENT****Box PATENT APPLICATION FEE**

Assistant Commissioner for Patents

Washington, DC 20231

Sir:

This Preliminary Amendment should be considered before examination of the referenced application.

**IN THE TITLE**

Amend the title to read as follows:

**Surgical Instrument Having Distal Face with First and Second Electrodes****IN THE SPECIFICATION**

Please replace the paragraph beginning on Page 20, line 31 and continuing to Page 21, line 8 with the following rewritten paragraph:

—FIGS. 18A-C illustrate a further alternative embodiment of the electrosurgical aspiration instrument 1810 of the present invention in which the active and return electrodes 1822, 1824 lie in the same plane at the distal end 1812 of elongate probe member or shaft 1834. The active and return electrodes are substantially configured similarly such that the two conductors 1816 and

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1826 are electrically coupled through shaft 1827 to the distal end 1812. Electrodes 1822 and 1824, which are shown as having the shape of a partial loop or prong, are electrically isolated by insulator 1828. Delivery of energy is equal to both electrodes such that an equal, bipolar effect occurs at the surgical site. Both electrodes extend from one side of aspiration aperture 1825 in shaft 1834 to a point across the aperture and return to the generator. One electrode serves as an active electrode and one electrode serves as a return electrode. It will be appreciated that either electrode may be an active or a return since the polarity of the power generator may be reversed. Because both electrodes are configured across the aspiration aperture 1825, clogging and blockage of the aperture is prevented or reduced.--

#### IN THE CLAIMS

Please cancel Claims 1-40 and add the following new claims:

—41. A surgical instrument for treating tissue comprising an elongate probe member having proximal and distal extremities, the distal extremity having a distal surface and first and second spaced-apart electrodes protruding from the distal surface and adapted to engage the tissue, and first and second electrical leads carried by the elongate probe member and extending from the proximal extremity to the distal extremity, the first and second electrical leads being coupled respectively to the first and second electrodes for supplying electrical energy to the first and second electrodes, the first electrode being an active electrode and the second electrode being a return electrode.

42. The surgical instrument of Claim 41 wherein at least one of the first and second electrodes has a portion spaced outwardly from the distal surface.

43. The surgical instrument of Claim 42 wherein each of the first and second electrodes has a portion spaced outwardly from the distal surface.

44. The surgical instrument of Claim 42 wherein the at least one of the first and second electrodes has the shape of partial loop.

45. The surgical instrument of Claim 42 wherein the at least one of the first and second electrodes has the shape of prong.

46. The surgical instrument of Claim 42 wherein the distal face is provided with an aspiration aperture and the elongate probe member has a lumen extending from the proximal extremity to the aspiration aperture in the distal face, the portion of the at least one of the first

and second electrodes extending across the aspiration aperture.

47. The surgical instrument of Claim 46 wherein each of the first and second electrodes has a portion spaced outwardly from the distal surface and extending across the aspiration aperture.

48. The surgical instrument of Claim 41 wherein the first and second electrodes extend parallel to each other.

49. The surgical instrument of Claim 41 wherein the first and second electrodes extend in the same plane.

50. The surgical instrument of Claim 41 wherein each of the first and second electrodes is cylindrical in shape.

51. A surgical instrument for treating tissue comprising an elongate probe member having proximal and distal extremities, the distal extremity having a distal surface and first and second spaced-apart electrodes protruding from the distal surface and adapted to engage the tissue, and first and second electrical leads carried by the elongate probe member and extending from the proximal extremity to the distal extremity, the first and second electrical leads being coupled respectively to the first and second electrodes for supplying electrical energy to the first and second electrodes, the first and second electrodes extending parallel to each other.

52. The surgical instrument of Claim 51 wherein at least one of the first and second electrodes has a portion spaced outwardly from the distal surface.

53. The surgical instrument of Claim 52 wherein each of the first and second electrodes has a portion spaced outwardly from the distal surface.

54. The surgical instrument of Claim 52 wherein the at least one of the first and second electrodes has the shape of partial loop.

55. The surgical instrument of Claim 52 wherein the at least one of the first and second electrodes has the shape of prong.

56. The surgical instrument of Claim 52 wherein the distal face is provided with an aspiration aperture and the elongate probe member has a lumen extending from the proximal extremity to the aspiration aperture in the distal face, the portion of the at least one of the first and second electrodes extending across the aspiration aperture.

57. The surgical instrument of Claim 56 wherein each of the first and second electrodes has a portion spaced outwardly from the distal surface and extending across the

aspiration aperture.

58. The surgical instrument of Claim 51 wherein the first and second electrodes extend in the same plane.

69 50. The surgical instrument of Claim 51 wherein each of the first and second electrodes is cylindrical in shape.--

### REMARKS

This Preliminary Amendment should be considered before examination of this continuation application.


Applicants' changes to the specification are supported by the drawings and other portions of the specification. For example, the inclusion of electrodes 1822 and 1824 having the shape of a partial loop or prong is supported by the paragraph beginning on Page 14, line 23 of the specification, which relates to FIGS. 10A-10B. Electrodes 1822 and 1824 in FIGS. 18A-18C are drawn similar to electrodes 1022 shown in FIGS. 10A-10B.

Attached hereto is a marked-up version of the title and claims showing the changes made thereto by this Preliminary Amendment. That attached page is captioned "Version with Markings to Show Changes."

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES****In the Title:**

The title has been amended as follows:

Surgical Instrument [for Ablation and Aspiration]  
Having Distal Face with First and Second Electrodes

**In the Specification:**

Paragraph beginning on Page 20, line 31 and continuing to Page 21, line 8 has been amended as follows:

—FIGS. 18A-C illustrate a further alternative embodiment of the electrosurgical aspiration instrument 1810 of the present invention in which the active and return electrodes 1822, 1824 lie in the same plane at the distal end 1812 of elongate probe member or shaft 1834. The active and return electrodes are substantially configured similarly such that the two conductors 1816 and 1826 are electrically coupled through shaft 1827 to the distal end 1812. Electrodes 1822 and [1834] 1824, which are shown as having the shape of a partial loop or prong, are electrically isolated by insulator 1828. Delivery of energy is equal to both electrodes such that an equal, bipolar effect occurs at the surgical site. Both electrodes extend from one side of aspiration aperture 1825 in shaft 1834 to a point across the aperture and return to the generator. One electrode serves as an active electrode and one electrode serves as a return electrode. It will be appreciated that either electrode may be an active or a return since the polarity of the power generator may be reversed. Because both electrodes are configured across the aspiration aperture 1825, clogging and blockage of the aperture is prevented or reduced.--